

with red-brown. Fore wing red-brown; a fiery red spot at base, the area just before antemedial line and the medial area, except towards costa, fiery red; the antemedial line very indistinct; ill-defined red-brown spots in middle and end of cell; postmedial line indistinct, excurved and minutely waved from costa to vein 3, then retracted to below end of cell; some diffused fiery red on terminal area at apex and below middle; a terminal series of black points. Hind wing ochreous white, suffused with brown towards termen; the underside with traces of postmedial line on costal area.

Hab. Abaco (*P. A. Meers*), 2 ♂; Andros (*Bonhote*), 1 ♂ type. *Exp.* 26 mm.

Stenoptycha pterophoralis, Wlk. xxxiv. 1340 (1865).

Nassau (*Sir G. Carter*).

XXVII.—*New Callithrix*, *Midas*, *Felis*, *Rhipidomys*, and *Proechimys* from *Brazil* and *Ecuador*. By OLDFIELD THOMAS.

Callithrix penicillata jordani, subsp. n.

Mr. Robert has obtained two series of marmosets referable to *Callithrix penicillata*, Geoff., one from Lamarão, near Bahia, and the other from the Rio Jordão, Province Araguay, Minas Geraes. The former, on geographical grounds, may be regarded as the true *penicillata*, which was simply described as from Brazil, and from this animal the Jordão form appears to differ sufficiently to deserve subspecific distinction.

Size averaging slightly larger than in *penicillata*. General tone of the light colour of the back buffy whitish instead of pure greyish white. Under surface with less black on the throat, this part being grey, only slightly washed with blackish; the black, however, tends to form a black central line over the sternum. Belly and anterior face of thighs strongly suffused with dull yellowish, the hairs of *penicillata* being blackish tipped with white over the whole under surface. Flank-hairs, where overhanging belly, less vividly coloured, their bases dark slaty instead of black; their next ring dull instead of vivid orange, and their subterminal dark band narrower and less conspicuous. Face less brightly picked out with black and white, the white patches below the

eyes almost obsolete, and the centre line between the nostrils pale brownish white instead of pure white. Hands and feet more or less marbled with black and orange instead of clear greyish. Tail-hairs, even near its base, almost or quite without orange rings, the great majority of the hairs being simply black with white tips.

Skull much as in true *penicillata*, but the middle upper incisors show a curious difference in shape; for in *jordani* they are longer, narrower, more parallel-sided, and less strongly convergent towards each other than in *penicillata*, their breadth in the latter about two thirds their length, while it is about half in the former.

Dimensions of the type (measured in the flesh):—

Head and body 235 mm.; tail 298; hind foot (s. u.) 58; ear 20.

Skull: greatest length 44.5; basal length 32; greatest breadth of brain-case 25; length of nasals laterally 8.6; combined length of premolars and molars 8.8.

Hab. Rio Jordão, S.W. Minas Geraes. Alt. 800 m.

Type. Adult female. B.M. no. 1. 11. 3. 9. Original number 706. Collected 9th June, 1901. Seven specimens.

The yellowish aspect of the belly and inguinal region, the dulled whiteness of the nasal septum, the general absence of yellow on the tail-hairs, and the long narrow incisors are the most tangible characteristics of this inland race of the well-known *Callithrix penicillata*.

Midas * *Goeldii*, sp. n.

A uniformly dark species, the fur with hoary tips. No special ear or other tufts.

Fur long, soft, and straight; hairs of back and shoulders about 28–30 mm. in length, those of the neck nearly equally long, and therefore projecting laterally far beyond the ears, but not forming special ear-tufts. Muzzle thinly haired; crown and cheeks with hairs 10–15 mm. long, those on the latter directed downwards.

General colour blackish brown, the hairs of back “broccoli brown” at base, darkening outwards to black, the extreme tips (about 1–3 mm.) shining hoary or greyish coppery, which colour is most prominent on the rump, base of tail, and hind limbs. Many of the frontal hairs hoary yellowish throughout. Muzzle and lips blackish. Ears naked behind, a thin fringe of blackish hairs on the outer half of their inner

* In the absence of the skull I cannot be entirely certain that this marmoset is not a *Callithrix* (*Leopale auctorum*).

surface. Under surface thinly haired, blackish throughout. Hands and feet unusually broad, wholly black above, without lighter tipping. Tail like body, blackish, with lighter ends to the hairs.

In addition to the colours above described it should be noted that the type has some irregular and unsymmetrical patches of white hairs on the forehead, side of head in front of the ears, and on the loins; but I think that these are more or less pathological, having grown up on places injured during the animal's life. Marmosets in captivity are commonly fastened by a cord round the loins, and the white patches on the loins are likely to have been caused thereby. There is no trace of the normal marbling of the back so usual in the group.

Skull not preserved.

Dimensions of the type (a skin, which has been stuffed and then dismantled):—

Head and body 190 mm.; tail 255; hind foot (s. u.) 66.

Hab. Amazonas; the type brought alive to Pará.

Type. Male. B.M. no. 0. 2. 22. 1. Presented by Dr. E. A. Goeldi, of the Goeldi Museum, Pará.

As may be seen by the note * in Dr. Goeldi's Catalogue of Pará Mammals, this marmoset has been a puzzle for some time, but was provisionally assigned to *M. Weddelli*, Deville. Now, however, that I have had the opportunity of studying the members of the group more closely, I am convinced that it is a form hitherto undescribed, and I am pleased to apply to it the name of its donor, to whom our knowledge of the Pará fauna is so largely due. I still consider, as stated above, that the white patches on the head and loins are abnormal; but apart from these it cannot be referred to *M. Weddelli*, as that species has a white muzzle, marbled back, and rufous thighs, while the uniform hoary-washed blackish of *M. Goeldii* is quite unique.

Midas apiculatus, sp. n.

M. Devillei group.

Muzzle white; head black; nape, shoulders, and outer side of forearms finely grizzled smoky reddish brown (near "burnt umber" of Ridgway); back coarsely mixed black and dull whitish, becoming more reddish on the loins; hips and outer side of legs to ankles dull pale chestnut-rufous, a patch over the knee grizzled like the shoulder colour. Lower

* Bol. Mus. Goeldi, iv. p. 54 (1904).

lips white; throat black, belly dark rufous. Inner sides of fore limbs grizzled rufous, not black as in the other allied species. Upperside of hands and feet more or less grizzled, especially on the metatarsals, with orange-rufous. Tail dark rufous for its basal two inches, then gradually passing into deep black, but there is a hidden rufous ringing to the hairs as far along as the level of the tips of the outstretched hind feet. In *M. Devillei* only the extreme base is rufous or rufous mixed.

Size as in *M. Devillei*. Greatest length of skull 45 mm.

Hab. Copataza River, Upper Pastaza River, Oriente of Ecuador.

Type. Female. B.M. no. 80. 5. 6. 25. Collected between December 1877 and February 1878 by Mr. Clarence Buckley. Three specimens.

This marmoset was formerly regarded by me as *M. Devillei*, Geoff., but it is distinguishable from that animal by the grizzling of the upper surface of the feet, Geoffroy's species having these of a "noir luisant," as has been kindly verified for me on the type by M. Menegaux. And the same is the case in *M. nigrifrons*, Geoff. The extension of the grizzling on the tail to a third of its length before it becomes quite black and the rufous coloration of the inner sides of the forearms are further peculiarities of *M. apiculatus*.

An allied species is *M. tripartitus*, Milne-Edwards*, which alone of this group agrees with *M. apiculatus* in not having pure black feet; but that species has much more strongly defined and contrasted shoulder and body colours, and the outer sides of the thighs are grey instead of being rufous.

M. tripartitus is said by Cabrera† to be the same as *M. lagonotus*, Espada‡, an identification which the difference in the colour of the feet makes me doubt; but in any case the stated resemblance of Espada's species to Milne-Edwards's figure shows that *M. apiculatus* is different from *M. lagonotus*.

One of the three specimens of *M. apiculatus* has the marbled dorsal hairs profusely mixed with wholly white ones, the general body-colour being thereby rendered of a much paler grey. This is probably due to senility.

The two specimens in the Museum obtained by Mr. E.

* N. Arch. Mus. (2) i. p. 160, pl. iii. (1878).

† An. Soc. Españ. xxix. p. 92 (1900).

‡ 'Algunos datos . . . faun. Amazonas,' p. 14 (Madrid, 1870); J. Sci. Lisb. iii. p. 57 (1871).

Bartlett on the Upper Amazons, and referred by him* to *M. Devillei*, appear also to be referable to *M. apiculatus*, but it is not clear exactly where they were obtained, as his statement that he collected examples both on the Ucayali and Huallaga would appear to have had reference to a larger number of specimens than two, and these individuals may have come from either of the two rivers. Their hands and feet are even more strongly grizzled than are those of the Copataza series.

Felis Wiedii vicens, subsp. n.

Fur of medium length; hairs of back about 13 mm. long. Fur of nape from withers to crown smoothly and completely reversed forwards. Ground-colour comparatively dark, near "clay-colour" on the head, top of neck, and dorsal area, buffy white on sides, and scarcely lighter on belly, not pure white anywhere. Longitudinal lines of nape strongly defined, five in number—a median rather irregular one, split into two in places, and two outer pairs of strong clear ones, the inner of which is continuous with the supraorbital black line. Median dorsal line commencing about a decimetre behind withers, single and well-defined posteriorly, partially split in two anteriorly. Spots of back and flanks oblong, elongate, but rarely lengthened into lines, a slight lighter centre present in some. Throat with three transverse dark lines, the two anterior broken mesially. Chest and inguinal region dull whitish, with few or no spots; belly profusely spotted. Ears with their edges and inner surfaces strong clay-colour; their backs black, with their posterior halves dull buffy whitish, not white, and not succeeded behind by a second black mark, as is usually the case. Limbs coloured like body; the spotting continued on to the metapodials. Palms and soles smoky brown. Tail long, its ground-colour like the body, its dark rings about twelve in number, rather broader than the light ones, mostly broken below; the extreme tip blackish.

Skull with a narrower and more elongate brain-case than is usual in this group, the most convex part barely surpassing in breadth the narrowest point on the ridge above the meatus and considerably surpassed by the broad mastoid ridges, which, in conjunction with the lambdoid crests, are here unusually developed. Nasals large and broad. Bullæ very large, much larger and approaching each other more nearly than in any other skull seen of this group.

* P. Z. S. 1871, p. 220.

Dimensions of the type (measured in the flesh):—

Head and body 560 mm.; tail 405; hind foot (s. u.) 123; ear 55.

Skull: greatest length 100; basal length 87; zygomatic breadth 66; nasals, length (in middle line) 20, breadth 13·7; interorbital breadth 19; intertemporal breadth 33·5; breadth of brain-case 43; greatest mastoid breadth 45·2; least breadth on ridge above meatus 41·7; bullæ, length 24, distance apart 9; length of upper carnassial 11·6.

Hab. Igarapé-Assu, near Pará. Alt. 50 m.

Type. Old male. B.M. no. 4. 7. 4. 43. Original number 1867. Collected 24th April, 1904, by A. Robert. Presented by Oldfield Thomas. One specimen.

This cat clearly belongs to the *F. Wiedii* group, as defined in my paper on the spotted tiger-cats of Brazil*; but it is distinguished from any that I have seen by its large bullæ and comparatively narrow and parallel-sided brain-case, beyond and behind which the broad lambdoid and mastoid ridges conspicuously project. The forward direction of its nape-hairs is unusually smooth and definite, and its light ear-patches are not so white as in specimens from other localities.

Dr. Goeldi has given a pretty figure of the head of this cat in his recent work on the mammals of Pará†.

Rhipidomys pictor, sp. n.

A medium-sized species allied to *R. venezuelæ*.

Size rather less than in *R. venezuelæ*, markedly greater than in *R. dryas*. Fur close and crisp; hairs of back about 6–6·5 mm. in length. General colour above dark fulvous brown, rather more rufous on the sides. Belly and inner sides of limbs white, not very sharply defined, the hairs along the sides of the belly grey basally, the others white to their roots. Ears rather short, pale brown. Outer side of arms and legs dull fulvous; hands and feet thinly haired, whitish, the metatarsals with indistinct browner patches along their outer halves. Tail fairly well haired, the tip with a well-marked pencil whose hairs attain 12 mm. in length; uniformly brown throughout.

Skull very similar to that of *R. venezuelæ*, but smaller. Brain-case rounded, its profile convex; supraorbital edges sharply defined, but not heavily ridged; zygomatic plate not projected forward; palatal foramina well open, not reaching backwards quite to the level of the front of m^1 ; bullæ small.

* Ann. & Mag. Nat. Hist. (7) xii. p. 234 (1903).

† Prodr. Cat. Mamm. Mus. Pará, p. 30 (1903).

Dimensions of the type (measured in the flesh) :—

Head and body 112 mm.; tail 151; hind foot (s. u.) 25; ear 15.

Skull: greatest length 32; basal length 24·5; zygomatic breadth 17; nasals, length 10·7; interorbital breadth 5·6; brain-case, breadth 15; palate length 12·4; diastema 8·2; palatal foramina $6\cdot3 \times 2\cdot4$; length of upper molar series 4·7.

Hab. Rio Verde, N.W. Ecuador. Alt. 1000 m.

Type. Adult male. B.M. no. 1. 1. 6. 4. Collected 6th December, 1899.

This *Rhipidomys* appears to be the Ecuadorean representative of *R. venezuelæ*, but it is smaller than either that species or *R. latimanus*, Tomes. It may also be related to my *R. microtis* of Bogota, but has larger ears.

Rhipidomys paricola, sp. n.

A very small species of the *R. dryas* group.

Size almost or quite the smallest of the genus. Fur rather sparse, hairs of back about 6 mm. long. General colour dark rufous grey, much duller than in *R. dryas*; sides but little clearer rufous. Under surface dull creamy white, not sharply defined laterally; the hairs slaty basally, except on the throat and the centre of the chest. Outer aspect of limbs like body, inner whitish, the hind limbs not so white as the anterior ones. Hands and feet dull buffy, the hallucal edges of the metatarsals lighter. Ears of medium size, the anterior part of their backs blackish, contrasting with the general colour. Tail slender, uniformly blackish, not well haired for this genus, the scales scarcely hidden, and the tip with but a slight pencil, of which the hairs are only about $2\frac{1}{2}$ mm. long.

Skull very similar to that of *R. dryas*.

Dimensions of the type (measured in the flesh) :—

Head and body 100 mm.; tail 100; hind foot (s. u.) 22; ear 17.

Skull: greatest length 25; basilar length 19·3; interorbital breadth 4·7; palatine foramina $4 \times 2\cdot1$; length of upper molar series 4·2.

Hab. Igarapé-Assu, near Pará. Alt. 50 m.

Type. Female. B.M. no. 4. 7. 4. 63. Original number 1872. Collected 29th April, 1904, by Alphonse Robert.

This species is evidently most closely allied to the Ecuadorean *R. dryas*, but may be readily distinguished by its much duller coloration. The recently described *R. rosilla* is also a member of the same group.

Proechimys oris, sp. n.

Most nearly allied to *P. cayennensis* and *P. Roberti*.

General proportions about as in *P. cayennensis*. Spines of back more restricted in their distribution than in that species, the posterior back for nearly a third of its length being spineless; thighs, flanks, and nape also practically without spines. Spines of back about 18 mm. long by 0.7 mm. broad. Lower belly and inner sides of forearms and thighs nearly naked. General colour above dark tawny brown, lined with blackish, the soft-haired rump more rufous; head, sides, arms, and legs greyish brown. In *P. cayennensis* the general colour is darker, the rump brownish, and the back of the hind legs heavily blackened. Hands and feet dull whitish, without special markings. Tail large-scaled, thinly haired, brown above, whitish below.

Skull very like that of *P. cayennensis*, but rather more slender. Interparietal longer antero-posteriorly. Anterior edge of malar forming a long, sharp, forwardly projecting angle at its junction with the maxillary, the corresponding line in *P. cayennensis* being short and obtuse. Palatal foramina well open mesially, but narrowing rapidly behind almost to a point, with little trace of such raised edges as in *P. cayennensis* form two parallel open gutters behind. Base of skull between bullæ narrower than in *cayennensis*.

Teeth as in *P. cayennensis*, the upper ones all simply and uniformly quadrilaminar.

Dimensions of the type (measured by Mr. Robert in the flesh):—

Head and body 245 mm.; tail 174; hind foot (s. u.) 46; ear 21.

Skull: greatest length 58; basilar length 41; zygomatic breadth 26; nasals 21.5; interorbital breadth 12; breadth across parietal ridges 21; palate length 19.5; diastema 11.8; palatal foramina 7×3.2 ; length of upper tooth-series 8.2.

Hab. Igarapé-Assu, near Pará. Alt. 50 m.

Type. Old male. B.M. no 4. 7. 4. 78. Original number 1818. Collected 6th March, 1904, by Alphonse Robert. Seventeen specimens.

This spiny rat differs from *P. cayennensis*, of which the British Museum contains four topotypes obtained by Mr. G. K. Cherrie, by its more rufous colour, especially its much more reddish rump and hind limbs, by the lesser spininess of its posterior back, by the nakedness of its inguinal region, and by the cranial characters above detailed.

Another allied species is *P. Roberti*, Thos., of S. Minas

Geraes, which agrees very closely with *P. oris* in its cranial characters, but differs by its paler and more uniformly buffy colour, its fully haired under surface, and its much longer and softer fur, of which the spines form a less considerable proportion than usual.

In the same locality Mr. Robert also obtained a porcupine allied to *Coendou prehensilis*, but differing by its much darker colour and by the reduction of the white of the bases of the dorsal spines to about 15 or 20 mm. In these respects it agrees with the type of Gray's *C. tricolor*, from which, in the absence of much larger series of different ages, I am unable to separate it.

XXVIII.—*New Bats and Rodents from West Africa, the Malay Peninsula, and Papuasia.* By OLDFIELD THOMAS.

Nyctymene * *Robinsoni*, sp. n.

Slightly smaller than *N. major*. Ears comparatively large. Fur long, thick, and close; hairs of back about 10 mm. in length. Base of interfemoral membrane above more thickly covered than in the allied species; otherwise the distribution of the fur is similar. General colour above dark, between "wood-brown" and "drab" of Ridgway, the black dorsal line strong and well defined, extending from the withers to the base of the tail. Sides of neck and sides of body below dark "cinnamon," the middle line of neck and chest more greyish. Spotting profuse, the ears as well as the limbs and membranes with many prominent white spots. Ears much larger than in any other species, even slightly exceeding those of the much larger *N. aello*.

Skull broad and heavily built. Frontal profile very convex above the orbits, the upper edge of which is considerably swollen. Second lower premolars with well-marked antero-internal supplementary cusps. Coronoid process well slanted backwards, not so upright or convex as in *N. major*.

Dimensions of the type (measured on the spirit-specimen):—

Forearm 67 mm.

Head and body 100; tail 24; lower leg and foot (c. u.) 41.5; ear 18.

* *Nyctymene*, Bechst. 1800.

Syn. *Cephalotes*, Geoff.; *Harpyia*, Ill.; *Gelasinus*, Temm.; *Uro-nycteris*, Gray.